



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,980	03/15/2005	Adalbert Huber	MERCK-2981	1788

23599 7590 06/25/2007
MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201

EXAMINER

HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
----------	--------------

1755

MAIL DATE	DELIVERY MODE
-----------	---------------

06/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,980	Applicant(s) HUBER ET AL.	
	Examiner Patricia L. Hailey	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-13 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1755

Applicant's remarks and amendments, filed on March 20, 2007, have been carefully considered. Claim 8 has been canceled, and new claims 14 and 15 have been added.

Claims 1-7 and 9-15 are now pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 15, 2005.

Election/Restrictions

2. Newly submitted claim 14 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claim 14 is directed to a method for light protection or corrosion protection, said method comprising the application of surface-modified effect pigments according to Claim 1 to an article.

The surface-modified effect pigments of claim 1 and the method claimed in claim 14 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product.

Art Unit: 1755

See MPEP § 806.05(h). In the instant case the surface-modified effect pigments as claimed can be used in another and materially different process of using that product, such as a process of making a paint, ink, or other coating composition.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 14 is hereby withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 1-7, 9-13, and 15 are hereby under consideration by the Examiner.

Withdrawn Rejections

The 101 rejection of claim 12 for being directed to non-statutory subject matter, stated in the previous Office Action, has been withdrawn in view of Applicants' amendment to this claim.

The 102(e) rejection of claims 1-3 and 8-13 as being anticipated by Schauer et al. (U. S. Patent No. 6,686,046) has been withdrawn in view of Applicants' amendments.

The 103(a) rejection of claims 1 and 4-7 as being unpatentable over Winter et al. (U. S. Patent No. 5,563,242) has been withdrawn in view of Applicants' amendments.

New Grounds of Rejection

The following New Grounds of Rejection are being made in view of Applicants' amendments to the claims, and in view of the newly discovered reference to Glausch et al. (U. S. Patent No. 6,176,918).

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. ***Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

Claim 9 is rejected for depending from claim 8, which has been canceled. For purposes of examination, claim 9 will be interpreted as depending from claim 1.

Claim Rejections - 35 USC § 103

6. ***Claims 1-3 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glausch et al. (U. S. Patent No. 6,176,918) combined with Schauer et al. (U. S. Patent No. 6,686,046).***

Glausch et al. teach modified pearl luster pigments for waterborn coating systems, based on platelet-form substrates coated with metal oxides, wherein the

Art Unit: 1755

coating system consists of a water-based oligomeric silane system. See the Abstract of Glausch et al., as well as col. 1, lines 60-67.

The silane system, which is considered to read upon the limitation “polysiloxane” in **claim 3** (and therefore the limitation “LCST polymer”), is described at col. 2, line 1, to col. 3, line 65 of Glausch et al., as well as col. 6, lines 44-67.

At col. 4, lines 27-40 of Glausch et al., reference is made to “novel pigments for pigmenting coating materials, printing inks, plastics and cosmetics..., for example inorganic and organic absorption pigments, metal-effect pigments and LCP pigments...The substrates used are pigments which consist of a platelet-form material, for example,...titanium dioxide, iron(III) oxide,...”

Glausch et al. do not teach or suggest the claim limitation that the pigments “are sheathed with one or more layers...”, nor does the reference teach or suggest the remaining claimed “LCST and/or UCST polymer”.

Schauer et al. disclose particles provided with a coating of LCST polymers, prepared by dissolving an LCST polymer in a solvent at a temperature below the LCST, mixing the particles with the resulting solution, and raising the temperature of the resulting mixture to, and optionally beyond, the temperature at which the LCST polymer deposits onto the particle surfaces. See col. 1, lines 48-55 of Schauer et al. (considered to read upon **claim 10**), as well as col. 2, lines 21-41, which also discloses that the resultant LCST polymer coating applied to the particles exhibits thicknesses preferably greater than or equal to 50 nm (considered to read upon claim 2), and further discloses that the aforementioned coating process “is very preferably carried out such that

Art Unit: 1755

subsequently to or during formation of the coating the LCST polymer is rendered immobile on the surface of the substrates to be coated therewith.”

Exemplary particles that can be coated include pigments. See col. 1, line 66 to col. 2, line 9 of Schauer et al., which also discloses titanium dioxide and iron oxide as specific examples of pigments.

Note that titanium dioxide and iron oxide are also disclosed in Glausch et al., as discussed above.

The pigments coated by the LCST polymers can be used to produce binder-free pigment pastes containing a carrier medium, preferably water or an organic solvent, which by reason of their freedom from binding agents can be used universally in paints and varnishes. See col. 4, lines 5-17 of Schauer et al. (considered to read upon **claims 12 and 13**).

Examples of the LCST polymers are the same as those recited in Applicants' claim 3. See col. 4, lines 31-40 of Schauer et al.

Schauer et al. at col. 4, lines 18-25 disclose the feasibility in incorporating functional components such as UV stabilizers, chromophores, or luminescent components into the LCST coating. This disclosure is considered to read upon **claim 11**.

Lastly, Schauer et al. at col. 4, lines 28-30 disclose that “coating with LCST polymers may also serve to modify the particle surface...”; this disclosure is considered to read upon the claim limitation “surface-modified”.

Because both references teach similar pigments (i.e., titanium dioxide and iron oxide), it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Glausch et al. and Schauer et al., by either substituting the pigments of Glausch et al. for the titanium dioxide and iron oxide pigments disclosed in Schauer et al., or by substituting the coating systems of Glausch et al. with the polymers disclosed in Schauer et al., as the coating system of Glausch et al. and the polymers disclosed in Schauer et al. are viewed as functional equivalents, because both have been shown to coat pigments such as titanium dioxide and iron oxide, and thereby obtain Applicants' invention.

7. Claims 1, 4-7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. (U. S. Patent No. 5,563,242) in view of Glausch et al. (U. S. Patent No. 6,176,918).

Winter et al. disclose a polymer film composition comprising a base or color coat comprising a binder and an organic pigment or inorganic pigment or mixture thereof, and a clear coat adhering to the base coat. See col. 4 lines 46-51 of Winter et al.

The polymer film may also contain stabilized therein an organic material. Examples of these include polystyrene, poly-(α -methylstyrene), copolymers of styrene or methylstyrene, and polysiloxanes such as polyorganosiloxanes. See col. 6, line 48 to col. 7, line 2, and col. 8, lines 29-32 of Winter et al. (considered to read upon **claims 4 and 5**).

The stabilized polymer composition may also contain from about 0.01 to about 5% of conventional additives such as antioxidants, fillers such as carbon black, and plasticizers. See col. 9, lines 32-37 and col. 12, lines 54-62 of Winter et al. (considered to read upon **claims 6 and 7**).

Winter et al. do not explicitly recite the claimed "surface-modified effect pigments" as recited in claim 1.

Glausch et al. teach modified pearl luster pigments for waterborn coating systems, based on platelet-form substrates coated with metal oxides, wherein the coating system consists of a water-based oligomeric silane system. See the Abstract of Glausch et al., as well as col. 1, lines 60-67.

The silane system, which is considered to read upon the limitation "polysiloxane" in **claim 3** (and therefore the limitation "LCST polymer"), is described at col. 2, line 1, to col. 3, line 65 of Glausch et al., as well as col. 6, lines 44-67.

Note that Winter et al. as discussed above also teaches polysiloxanes.

At col. 4, lines 27-40 of Glausch et al., reference is made to "novel pigments for pigmenting coating materials, printing inks, plastics and cosmetics..., for example inorganic and organic absorption pigments, metal-effect pigments and LCP pigments..."

Because these references disclose common components (polysiloxanes), it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Winter et al. by incorporating therein the pigments disclosed in Glausch et al., and thereby obtain Applicants' invention.

Response to Arguments

8. Applicant's arguments with respect to Schauer et al. and Winter et al., and to the rejections stated in the previous Office Action, have all been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-

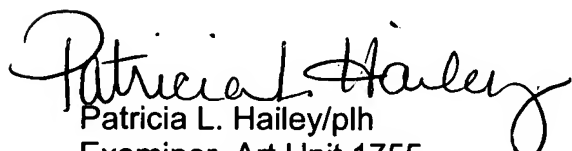
Art Unit: 1755

1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Patricia L. Hailey/plh
Examiner, Art Unit 1755
June 18, 2007


J.A. LORENZO
SUPERVISORY PATENT EXAMINER